RJA 2/18/22
JS 2/23/22

Fate Report for Case # P-19-0021

Fate
Summary Statement

Fate Summary Statement: P-19-0021-22

FATE: [redacted] with [redacted]
< 500 and [redacted] < 1000
[redacted]
S = Disp.
VP < 1.0E-6 torr
at 25 °C (E)
BP > 400 °C (E)
H < 1.00E-8 (E)
POTW removal
(%) = 90 via sorption
Time for complete ultimate aerobic biodeg >
mo
Sorption to soils/sediments = v.strong
PBT Potential:
P3B1
*FATE: Migration to ground water = negl

PMN
Material:
Overall wastewater treatment removal is 90% via
sorption.
Sorption to sludge is strong based on data for high molecular
weight polymers.
Air Stripping (Volatilization to air) is negligible
based on data for high molecular weight polymers.
Removal by
biodegradation in wastewater treatment is negligible based on data for
high molecular weight polymers.
The aerobic aquatic biodegradation
half-life is greater than six months based on data for high molecular
weight polymers.
The anaerobic aquatic biodegradation half-life is
greater than six months based on the aerobic biodegradation half-life.
The anaerobic biodegradation half-life is projected to be greater than or
equal to the aerobic biodegradation half-life.
Sorption to soil and
sediment is very strong based on data for high molecular weight
polymers.
Migration to groundwater is negligible based on data for high
molecular weight polymers.

PMN Material:
Very Persistent (P3) is
based on the estimated anaerobic biodegradation half-life and high molecular volume.
Low bioaccumulation potential (B1) is based on data
for high molecular weight polymers.
Bioconcentration/Bioaccumulation
factor to be put into E-Fast: N/A.

[redacted]

Fate Assessor: Lee, WenHsiung

SMILES: [redacted]

Physical Properties

Property	Measured/Calculated Value	EPI
Molecular Form:	[redacted]	
Molecular Wt.:		
% < 500:	[redacted]	
% < 1000:		

Property	Measured Value	Method	Estimated Value	Method	EPI
Melting Point:					
Boiling Point:					
BP Pressure:					
Vapor Pressure:			<0.000001		
Water Solubility:			Dispersible		
Log P:					
Log Kow:					

Property	Measured Value	Method	Estimated Value	Method	EPI
Log Koc:					
Log BCF:					
Henry's Law:					

pH:	
pH Comment:	

Fate Analysis

Hydrolysis (t1/2, da):	Volatilization (t1/2) - River (hr):	Volatilization (t1/2) - Lake (da):
Atm Ox Potential (t1/2)OH (hr):	Atm Ox Potential (t1/2)O3 (hr):	Atm Ox Potential (t1/2) Total (hr):
MITI Linear:	MITI NonLinear:	
Biodeg Linear:	Biodeg NonLinear:	
Biodeg Survey ult:	Biodeg Survey Prim:	
STP (% removal) Total:	STP (% removal) Biodeg:	
STP (% removal) Ads:	STP (% removal) Air:	

Rationales

Removal in Wastewater Treatment:	
Atmospheric Oxidation:	
Hydrolysis:	
Photolysis:	
Aerobic Biodegradation:	
Anaerobic Biodegradation:	
Sorption to Soil and Sediment:	

Migration to Groundwater:	
Persistence - Air:	
Persistence - Water:	
Volatilization from Water:	
Soil:	
Sediment:	
Other:	
Standard:	
Bioaccumulation:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	PBT Comments
3	1		

Exposure-Based Testing

Exposure-Based Testing:	

Fate Ratings

Removal in WWT/POTW (Overall):

Removal in WWT/POTW (Overall):	90

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	

Condition	Rating Values	Rating Description				Comment
		1	2	3	4	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	

Bio Comments:

Bio Comments:	

Fate Comments:

Fate Comments:	

Comments/Telephone Log

Artifact	Update/Upload Time

Artifact	Update/Upload Time
[redacted]	[redacted]